

Applicant(s) : Guangwen WEI, et al.  
U.S. Serial No.: 10/650,365  
Filed : August 28, 2003  
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Page 16, line 12:

Oligomer H(Seq. ID. No.:13) :

5'ACTGCCAGGCTGCAGTTATTCTTTACGACGCAGACGTTCC3'

#### REMARKS

Claims 1-9, 11-16, 23-25, 27 and 29 are pending in this Application. By this Amendment, applicants have hereinabove canceled claims 1-9, 11-16, 23-25, 27 and 28 without prejudice to applicants' rights to pursue the subject matters in a further application. Applicants add new claims 29 to 37. Claim 29 corresponds to the cancelled claims 1 and 3. Claim 30 corresponds to the cancelled claim 2. Claim 31 corresponds to canceled claim 6. Claim 32 corresponds to canceled claim 7. Claim 33 corresponds to canceled claim 8. Claim 34 corresponds to canceled claim 9. Claim 35 corresponds to canceled claim 11. Claim 36 corresponds to canceled claim 23. Claim 37 corresponds to canceled claim 24.

Accordingly, there is no issue of new matters and applicants respectfully request the entry of this Amendment. Upon entry, claims 29 to 37 will be pending and under examination.

#### Specification

The Examiner to whom this Application is assigned indicated that this application contains sequence disclosure and reference to relevant sequence identifiers is required.

In response, applicants have hereinabove amended the specification to insert the identifiers appropriately. Applicants believe that the amended specification fully complies with the sequence requirements.

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Information Disclosure Statement (IDS)

Applicants' undersigned attorney's office has contacted the Examiner and was told that some references in the IDS are repetitive and therefore, they are crossed out in the IDS forms. Applicants will check the filed record to verify if repeated references are submitted and will notify the Examiner shortly.

Priority

There is no requirement that the priority document would need to be translated so that the priority date would be honored. Applicants respectfully request the Examiner to provide appropriate authority. In an event, should the Examiner request the priority document to be translated, please notify the applicants immediately?

Claim 11 objection

Claim 11 has been cancelled without prejudice, thereby rendering this ground of rejection moot.

Section 112 Rejection

The Examiner rejected claims 1-9, 11 and 23-24 under section 112, second paragraph.

In response but without conceding the correctness of the Examiner's position and to expedite the prosecution of this application, applicants have hereinabove cancelled claims 1-9, 11 and 23-24 without prejudice, thereby rendering this ground of rejection moot. New claims 29-37 does not contain the

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terms at issue and therefore is fully complied with the section 112, second paragraph requirements.

#### Section 102 Rejection

The Examiner rejected claims 1-6, 9, 11 and 23 under 35 USC 102(b) as being anticipated by Day et al. (1992).

In response but without conceding the correctness of the Examiner's position and to expedite the prosecution of this application, applicants have hereinabove cancelled claims 1-9, 11 and 23-24 without prejudice.

New independent claim 29 recites: A recombinant super-compound interferon with a Seq. ID No. 1 with higher efficacy than all the interferons described in U.S. Patent Nos. 4,695,623 or 4,897,471.

Day disclose a murine sequence which is not the same as ID No. 1. Accordingly, Day cannot anticipate the claimed invention. Therefore, applicants respectfully request the reconsideration and withdrawal of this ground of rejection.

#### Section 103 Rejection

The Examiner rejected claims 7, 8 and 24 under 35 USC 103(a) as being unpatentable over Day et al. in view of Olsen et al (US Patent No. 6,114,145) and Nasoff et al. (1999).

#### Teaching of Day

It is the Examiner's position that Day has described recombinant murine interferon-beta, which has increased

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specific activity (15 fold). The Examiner stated that it [Day] also describes increased viral activity. The Examiner further stated that the reference teach that residues at 17, 29 and 136 have been changed which would change the spatial configuration of the polypeptide.

However, this is not the applicants' claimed invention. Applicants' claimed invention does not change the primary amino acid sequence yet can produce different biological activities.

#### **Teaching of Day in combination with Olsen and Nasoff**

The Examiner stated that Olsen et al have described Synferon a novel protein that related to interferon family (abstract). The Examiner stated that it also teaches methods to optimize expression in hosts such as E.coli by modifying the codon usage. The Examiner stated that it also teaches interferons in pharmaceutically acceptable carrier. The Examiner also stated that Nasoff reports that pBAD promoters which are capable of expressing high levels of protein of the human genes in E.coli. pBAD promoters are tightly regulated by inducer arabinose. The Examiner then concluded that it would have been prima facie obvious to the person of ordinary skill in the art at the time of the invention was made to generate the recombinant murine interferon-beta described by Day to include E.coli specific codons and express the protein under E.coli pBAD promoter reported by Olsen et al and Nasoff et al.

In response, applicants respectfully traverse the above ground of rejection.

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Applicants' claimed invention is directed to a recombinant super-compound interferon with a Seq. ID No. 1 with higher efficacy than all the interferons described in U.S. Patent Nos. 4,695,623 or 4,897,471 and various uses thereof.

This primary sequence (Seq ID: 1) has been known. However, the interferon produced by the claimed invention has different biological effects: higher efficacy. None of the cited reference teaches proteins with same primary sequence but with different biological activities. Accordingly, the references, alone or in combination cannot render the claimed invention obvious. Therefore, applicants respectfully request the reconsideration and withdrawal of this ground of rejection.

#### Conclusion

Applicants maintain all the grounds raised in the August 23, 2005 Office Action have been addressed and earnestly urge the Examiner to render favorable action for the claimed invention.

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

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No fee is deemed necessary in connection with the filing of this Amendment. However, if any additional fee is required, authorization is given to charge the amount of any such fee to Deposit Account No. 50-1891.

Respectfully submitted,

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on the date shown below.

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